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Williams et al.

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(54) **APPARATUS FOR LAUNCHING AN OBJECT
IN A FLUID ENVIRONMENT**

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114/316; 114/320; 114/238

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319, 238, 239, 320

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(57) **ABSTRACT**

An apparatus for launching an object in a fluid environment having a tubular member with a forward muzzle end, an opposed rearward end. The object is positioned in the tubular member. Ends of the tubular member are closed by expellable members. Flood valves are located on the expellable members and, on activation, allow flooding of the tubular member by external fluid. A propellant device and an object contact member are disposed within the tubular member. When the propellant device is activated, the object contact member moves the object. These actions are controlled by a control device which first causes the flood valves to enable fluid to flood the interior region. Next, the control device causes the expellable members to be expelled from the tubular member. The control device then causes the propellant device to generate gas in a predetermined manner launching the object from the tubular member.

15 Claims, 3 Drawing Sheets

